

INTERNATIONAL SEARCH REPORT

Internat
PC Application No
03/09893

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 C22C38/00 C22C38/12 C21D7/13

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 C22C C21D

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	PATENT ABSTRACTS OF JAPAN vol. 1995, no. 09, 31 October 1995 (1995-10-31) -& JP 07 157824 A (NIPPON STEEL CORP), 20 June 1995 (1995-06-20) abstract; example 8; table 1 paragraphs '0032!', '0033!' ---	1-7
X	PATENT ABSTRACTS OF JAPAN vol. 1997, no. 11, 28 November 1997 (1997-11-28) -& JP 09 194999 A (SUMITOMO METAL IND LTD), 29 July 1997 (1997-07-29) abstract; example 3; table 1 paragraph '0046!' --- -/--	1-7

☒ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

* Special categories of cited documents:

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- *8* document member of the same patent family

Date of the actual completion of the international search

17 December 2003

Date of mailing of the international search report

29/12/2003

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Swiatek, R

INTERNATIONAL SEARCH REPORT

International Application No.

PCT/JP 03/09893

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	PATENT ABSTRACTS OF JAPAN vol. 1995, no. 07, 31 August 1995 (1995-08-31) -& JP 07 102340 A (NIPPON STEEL CORP), 18 April 1995 (1995-04-18) abstract; example 8; table 1 ---	1-7
X	PATENT ABSTRACTS OF JAPAN vol. 017, no. 093 (C-1029), 24 February 1993 (1993-02-24) -& JP 04 285118 A (NIPPON STEEL CORP), 9 October 1992 (1992-10-09) abstract; table 1 ---	1,2
X	PATENT ABSTRACTS OF JAPAN vol. 1996, no. 07, 31 July 1996 (1996-07-31) -& JP 08 060236 A (KOBE STEEL LTD; MAZDA MOTOR CORP), 5 March 1996 (1996-03-05) abstract; example 17; table 1 ---	1
A	EP 0 648 853 A (NIPPON STEEL CORP) 19 April 1995 (1995-04-19) cited in the application the whole document ---	1-7
A	EP 1 051 531 A (ASCOMETAL SA) 15 November 2000 (2000-11-15) the whole document -----	1-7

INTERNATIONAL SEARCH REPORT

Information on patent family members

Internat

Application No

PC

03/09893

Patent document cited in search report		Publication date	Patent family member(s)		Publication date
JP 07157824	A	20-06-1995	NONE		
JP 09194999	A	29-07-1997	NONE		
JP 07102340	A	18-04-1995	JP	3261552 B2	04-03-2002
JP 04285118	A	09-10-1992	NONE		
JP 08060236	A	05-03-1996	NONE		
EP 0648853	A	19-04-1995	JP	3139876 B2	05-03-2001
			JP	6287679 A	11-10-1994
			DE	69418565 D1	24-06-1999
			DE	69418565 T2	14-10-1999
			EP	0648853 A1	19-04-1995
			US	5660648 A	26-08-1997
			WO	9423085 A1	13-10-1994
EP 1051531	A	15-11-2000	FR	2774098 A1	30-07-1999
			AT	204924 T	15-09-2001
			BR	9907926 A	28-11-2000
			DE	69900247 D1	04-10-2001
			DE	69900247 T2	18-04-2002
			DK	1051531 T3	07-01-2002
			EP	1051531 A1	15-11-2000
			JP	2002501985 T	22-01-2002
			PL	342058 A1	21-05-2001
			SI	20334 A	28-02-2001
			CZ	20002768 A3	16-01-2002
			ES	2162514 T3	16-12-2001
			WO	9939018 A1	05-08-1999
			PT	1051531 T	28-02-2002
			TR	200002200 T2	21-11-2000